

REMARKS

Claims 1-25 are pending in this application. Claims 3, 10-14, 16, 19-22 and 25 are being amended. Entry of the amendments to claims 10-14, 16, 19-22, and 25, and reconsideration of claims 1-25 are respectfully requested.

Claim Rejections and Objections

Claim 16 has been objected to under 37 C.F.R. §1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claims 1-25 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. (US Pat. No. 5,793,762) in view of Maroulis et al. (US Pat. No. 6,584,092 B2).

Amendments to the Claims

Claims 3 and 11 are being amended to correct a typographical error, and claims 10-14 and 16 are being amended to depend from independent claim 9 rather than claim 8. These claim amendments correct a clerical error in claim numbering that is clearly evident by the ordering of the claims. Accordingly, these claim amendments are not made for reasons of patentability to overcome the rejections of the claims and therefore should not give rise to any later estoppel with respect to any determination of claim scope under the Doctrine of Equivalents. Applicants request that the Examiner withdraw the objection to claim 16 under 37 C.F.R. §1.75(c). Claims 19-22, and 25 have been amended to clarify that the described “switching network” is a VoIP virtual private network shown in FIG. 3 and described in the specification.

Independent Claim 1

Claim 1 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. in view of Maroulis et al. Claim 1 recites a method comprising the steps of (1) a Command Center (CC) querying through an SS7 backbone to a Home Location Register (HLR) for routing information; (2) a Visited Mobile (Services) Switching Center (VMSC) assigning a temporary routing number N for the signal and passing the temporary routing number N back to the HLR; (3) the HLR returning the temporary routing number N via SS7 backbone to the CC; and steps involving the interaction of first and second gateways (GW-1 and GW-2). Applicants will show

that a *prima facie* case of obviousness cannot be made because steps of the method are not taught by the cited references, and because there is no motivation to combine Maroulis et al. with Penner et al. as suggested by the Examiner.

A *prima facie* case of obviousness requires that the prior art references teach or suggest all of the claim limitations (MPEP 2142). The Examiner has characterized Penners et al. as teaching all of the steps of the method except two, namely “the central office/PBX routing the signal to a first gateway; and returning instructions and VOIP IP address to the gateway 1” (paper #6 page 3). Applicants disagree with this characterization. At least the three steps (1) – (3) of claim 1 noted above are not taught or suggested by Penners et al. Turning first to step (1), Penners et al. does not teach or suggest a Command Center querying through an SS7 backbone to a Home Location Register for routing information. The Examiner has equated the Service Control Point 34 of Penners et al. to the Command Center of claim 1. However, the Examiner has not shown where the system described by Penners et al. employs a SS7 backbone for communication between Service Control Point 34 and the Home Location Register 38.

Turning to step (2), Penners et al. does not teach or suggest a Visited Mobile Switching Center assigning a temporary routing number N for the signal and passing the temporary routing number N back to the Home Location Register. The Examiner has equated the VLR/DN MGR 42 of Penners et al. to the Visited Mobile Switching Center of claim 1. However, there is no indication in Penners et al. that temporary routing numbers assigned by the VLR/DN MGR 42 are ever routed to the Home Location Register 38.

Turning to step (3), Penners et al. does not teach or suggest that the Home Location Register returns the temporary routing number N via a SS7 backbone to the Command Center. As noted above, there is no indication in Penners et al. that temporary routing numbers are routed from the VLR/DN MGR 42 to the Home Location Register 38. As further noted above, Penners et al. does not provide a SS7 backbone for communication between the Service Control Point 34 and the Home Location Register 38. Accordingly, Home Location Register 38 does not receive temporary routing numbers and does not possess them in order to route them to the Service Control Point 34. Even if, *arguendo*, Home Location Register 38 does route temporary routing numbers to the Service Control Point 34, the routing is not performed over a SS7 backbone.

Additionally, the Examiner has noted that Penners et al. does not include a first gateway, but has equated RPC 20 to the second gateway of claim 1. Applicants disagree with the

characterization of RPC 20 as a gateway and, accordingly, disagree that Penners et al. teaches those steps of the method of claim 1 that involve interactions with the second gateway GW-2. As shown in FIGs. 2 and 3 of the present application, first and second gateways are devices that link networks operating under different protocols and convert data between the protocols required by those networks. As noted by the specification, the gateways support “PC-to-telephone communications” (page 4 lines 11-12). RPC 20 of Penners et al. is not a gateway as that term would be construed by one of ordinary skill in the art in light of the teachings of the specification. As provided by Penners et al., “RPCs 20 are also enhanced to provide Foreign Agent (FA) functionality 28. This functionality does not affect the voice capability of the RPCs 20. Again, the signaling protocols for the two capabilities are mutually exclusive” (col. 7 lines 52-55). It is clear that the voice capability of the RPC 20 is part of the network for voice transmission and the Foreign Agent (FA) functionality is part of the packet network for data transmission, but that the RPC 20 is not itself a link between the two networks and does not perform protocol conversions therebetween as “the signaling protocols for the two capabilities are mutually exclusive.” Accordingly, as RPC 20 is not a second gateway, Penners et al. does not teach the steps of: (4) the CC informing a second gateway (GW-2) of an incoming connection; (5) the GW-2 informing the CC of its readiness to receive the incoming connection; and (6) GW-2 routing the connection to the VMSC.

As noted above, the Examiner has characterized Penners et al. as teaching all of the steps of the method except two, namely “the central office/PBX routing the signal to a first gateway; and returning instructions and VOIP IP address to the gateway 1” (paper #6 page 3). Accordingly, the Examiner has proposed to modify the system of Penners et al. by adding “the first and second gateways of Maroulis et al. into Penners et al.” (paper #6 page 3). The Examiner does not indicate why, if RPC 20 of Penners et al. has already been equated to the second gateway GW-2, it is necessary to introduce the second gateway of Maroulis et al. into Penners et al.. Regardless, even if, *arguendo*, Penners et al. does teach all of the steps of the method of claim 1 except the two noted by the Examiner, there is no motivation to combine Maroulis et al. with Penner et al. in the manner suggested by the Examiner.

Specifically, Penners et al. teaches a system for providing voice and packet data in separate networks to a mobile device (see the Abstract) while Maroulis et al. routes voice data originating on a first POTS telephone through the Internet to a second POTS telephone (FIG. 1).

Since the system of Penners et al. does not route voice data through a packet-based network such as the Internet, there is no need for the gateways described by Maroulis et al. Accordingly, one of ordinary skill in the art would not be motivated to add the first and second gateways of Maroulis et al. into Penners et al. as proposed by the Examiner. To establish a *prima facie* case of obviousness there must be some suggestion or motivation to combine the reference teachings (MPEP 2142), and here there is none.

Since at least 6 of the steps of the method of claim 1 are not taught by Penners et al., and there is no motivation to combine the references, a *prima facie* case of obviousness has not been established. Accordingly, Applicants request that the Examiner withdraw the rejection of claim 1 under 35 U.S.C. §103(a).

Independent Claim 2 and Dependent Claims 3-8

Claims 2-8 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. in view of Maroulis et al. Independent claim 2 recites a switching network having a first gateway and a second gateway and a command center for causing the first and second gateways to make an internal connection. As noted with respect to claim 1, above, Penners et al. does not route voice data through a packet-based network and does not include gateways. Accordingly, Penners et al. does not teach a switching network having first and second gateways and a command center that causes the first and second gateways to make an internal connection.

Claim 2 also recites a switching network having a visited mobile switch center for generating routing information, for receiving the communication from the external connection, and for routing the communication to the subscriber. As noted above, the Examiner has equated the VLR/DN MGR 42 of Penners et al. to the Visited Mobile Switching Center of claim 2. However, there is no indication in Penners et al. that the VLR/DN MGR 42 generates routing information. Rather, this function is found in the Service Control Point 34. Specifically, Penners et al. notes that “[i]n operation, the SCP 34 is operable to query the HLR 38 for routing information and provide the same to the switch 12” (col. 6 lines 49-51).

Additionally, in claim 2 the visited mobile switch center receives a communication from an external connection and routes the communication to the subscriber. It can be seen, however, from FIG. 2 of Penners et al. that communications from the Central Switch Office 12 follow

lines directly to the RPCs 20 and are never received by the VLR/DN-Mgr 42. Penners et al. describes the VLR/DN-Mgr 42 as follows:

The VLR/DN-Mgr 42 is operable to store information regarding the RPCs currently anchoring PCS calls. This information includes temporary routing number, current terminal location, service profile, and handover activity. As appreciated by those skilled in the art, VLR/DN-Mgr 42 has the traditional functionality of a cellular VLR[IS-41] Component plus the added functionality of managing (assigning and unassigning) temporary routing Directory Numbers (DN) for PCS calls" (col. 6 lines 54-63).

This description does not teach or suggest that VLR/DN-Mgr 42 receives communications from an external connection nor routes those communications to a subscriber. It is clear from this description in connection with FIG. 2 that the VLR/DN-Mgr 42 of Penners et al. does not receive communications from an external connection and route the communications to a subscriber.

Further still, in claim 2 the wireless network has a home location register for locating the visited mobile switch center, and for passing the routing information from the visited mobile switch center to the command center. Although Penners et al. shows a connection between VLR/DN-Mgr 42 and Home Location Register 38, there is no indication that Home Location Register 38 ever needs to *locate* the VLR/DN-Mgr 42. Moreover, as noted above with respect to claim 1, Home Location Register 38 does not receive temporary routing numbers and does not route them to the Service Control Point 34. Accordingly, the Home Location Register 38 of Penners et al. does not locate the VLR/DN-Mgr 42, and does not pass routing information from the VLR/DN-Mgr 42 to the Service Control Point 34.

In view of the above, Applicants request that the Examiner withdraw the rejections of claim 2, and claims 3-8 depending therefrom, under 35 U.S.C. §103(a).

Applicants also note the further patentability of the dependent claims. Claim 3 adds a further limitation that the command center communicates with the home location register through an SS7 gateway. As noted above with respect to claim 1, Penners et al. does not teach or suggest that Service Control Point 34 queries through an SS7 backbone to Home Location Register 38 for routing information. For essentially the same reasons Penners et al. does not teach or suggest that Service Control Point 34 communicates through an SS7 gateway to Home Location Register 38. Thus, claim 3 is further patentable over Penners et al. in view of Maroulis et al.

Claim 4 adds a further limitation that the command center is able to determine whether the caller's communication should be routed through the wireless network. Penners et al. does not teach or suggest that Service Control Point 34 makes any determination regarding whether a communication should be routed through the wireless network. Thus, claim 4 is further patentable over Penners et al. in view of Maroulis et al.

Claim 6 adds two further limitations regarding the first gateway. As noted above with respect to claim 1, there is no motivation to add the gateways described by Maroulis et al. to the system of Penners et al. Thus, claim 6 is further patentable over Penners et al. in view of Maroulis et al.

Similarly, claim 7 adds multiple further limitations regarding the first and second gateways. As noted above with respect to claim 1, Applicants disagree with the characterization of RPC 20 as a gateway and there is no motivation to add the gateways described by Maroulis et al. to the system of Penners et al. Thus, claim 7 is further patentable over Penners et al. in view of Maroulis et al.

Claim 8 adds a further limitation that the switching network is a VoIP Virtual Private Network. Neither Penners et al. nor Maroulis et al. teaches a VoIP network, and as noted with respect to claim 1, Penners et al. does not route voice data through a packet-based network. Thus, claim 8 is further patentable over Penners et al. in view of Maroulis et al.

Independent Claim 9 and Dependent Claims 10-16

Claims 9-16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. in view of Maroulis et al. Independent claim 9 recites gateways for receiving a communication, and for establishing an external connection through which the communication can be routed to a wireless network; and a command center for receiving routing information from the wireless network and for causing the gateways to make the external connection to the switching network based on the routing information. As noted above with respect to claim 1, the system of Penners et al. does not include gateways, does not route voice data through a packet-based network, and there is no motivation to add the first and second gateways of Maroulis et al. into Penners et al. as proposed by the Examiner. For at least these reasons claim 9 is patentable over Penners et al. in view of Maroulis et al. Accordingly, Applicants request that the Examiner withdraw the rejections of claim 9, and claims 10-16 depending therefrom, under 35 U.S.C.

§103(a). Additionally, claims 11, 12, 13, 14, and 16 are further patentable for essentially the reasons provided above with respect to claims 3, 4, 5, 6, and 8, respectively.

Independent Claim 17 and Dependent Claim 18

Claims 17 and 18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. in view of Maroulis et al. Independent claim 17 recites a wireless network comprising a visited mobile switch center for generating routing information, for accepting a communication through an external connection from a switching network, and for routing the communication to a subscriber; and a home location register for locating the visited mobile switch center, and for passing the routing information from the visited mobile switch center to the switching network. The limitations of the wireless network of claim 17 are essentially the same as the limitations of the wireless network of claim 2. Accordingly, claim 17 is patentable over Penners et al. in view of Maroulis et al. for essentially the reasons provided above with respect to the wireless network of claim 2. Applicants therefore request that the Examiner withdraw the rejections of claim 17, and claim 18 depending therefrom, under 35 U.S.C. §103(a).

Independent Claim 19 and Dependent Claims 20 and 21

Claims 19-21 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. in view of Maroulis et al. Independent claim 19, as amended, recites a method with steps performed at a VoIP virtual private network, and steps at a wireless network involving interactions with the VoIP virtual private network. As noted above with respect to claim 8, neither Penners et al. nor Maroulis et al. teaches a VoIP network. Accordingly, neither reference can teach the steps of the method of claim 19 that are performed at the VoIP network or that require interaction with the VoIP network. Similar arguments apply to the further patentability of dependent claims 20 and 21. Applicants therefore request that the Examiner withdraw the rejections of claim 19, and claims 20 and 21 depending therefrom, under 35 U.S.C. §103(a).

Independent Claim 22 and Dependent Claims 23 and 24

Claims 22-24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. in view of Maroulis et al. Independent claim 22, as amended, recites a method

including receiving a communication in a VoIP virtual private network, and establishing an external connection to the VoIP virtual private network. As just noted with respect to claim 19 neither Penners et al. nor Maroulis et al. teaches a VoIP network. Accordingly, neither reference can teach the noted steps of claim 22. Applicants note that claim 23 is further patentable for essentially the reasons provided above with respect to claim 4. Applicants therefore request that the Examiner withdraw the rejections of claim 22, and claims 23 and 24 depending therefrom, under 35 U.S.C. §103(a).

Independent Claim 25

Claim 25 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Penners et al. in view of Maroulis et al. Independent claim 25, as amended, recites a method comprising steps involving interactions with a VoIP virtual private network. As above, neither Penners et al. nor Maroulis et al. teaches a VoIP network. Accordingly, neither reference can teach the steps of claim 25 involving interactions with a VoIP virtual private network. Applicants therefore request that the Examiner withdraw the rejection of claim 25 under 35 U.S.C. §103(a).

CONCLUSION

All pending claims are now allowable and Applicants therefore respectfully request a Notice of Allowance from the Examiner. Should the Examiner have questions, the Applicants' undersigned agent may be reached at the number provided.

Respectfully submitted,

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